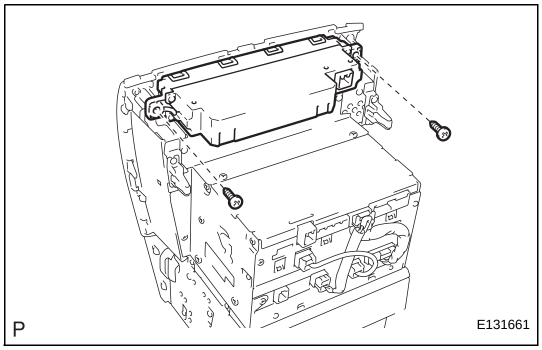
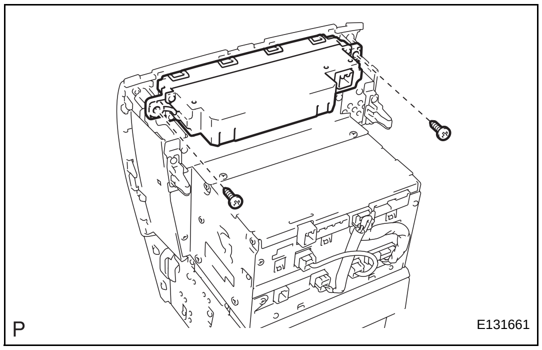
REMOVAL

1. **REMOVE INSTRUMENT PANEL FINISH PANEL END LH (See page IP-13)**
2. **REMOVE INSTRUMENT PANEL FINISH PANEL END RH (See page IP-15)**
3. **REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page IP-16)**
4. **REMOVE UPPER CONSOLE PANEL ASSEMBLY WITH FRONT ASH RECEPTACLE (See page IP-16)**
5. **REMOVE NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY (See page IP-17)**
6. **REMOVE MULTI-DISPLAY WITH RADIO RECEIVER ASSEMBLY (See page AV-170)**
7. **REMOVE NO. 1 RADIO BRACKET (See page AV-170)**
8. **REMOVE NO. 2 RADIO BRACKET (See page AV-170)**



9. **REMOVE CLOCK ASSEMBLY**
   (a) Remove the 2 screws and the clock assembly.

INSTALLATION



1. **INSTALL CLOCK ASSEMBLY**
   (a) Install the clock assembly with the 2 screws.
2. **INSTALL NO. 2 RADIO BRACKET (See page AV-173)**
3. **INSTALL NO. 1 RADIO BRACKET (See page AV-173)**
4. **INSTALL MULTI-DISPLAY WITH RADIO RECEIVER ASSEMBLY (See page AV-173)**
5. **INSTALL NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY (See page IP-41)**
6. **INSTALL UPPER CONSOLE PANEL ASSEMBLY WITH FRONT ASH RECEPTACLE (See page IP-42)**
7. **INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (See page IP-42)**
8. **INSTALL INSTRUMENT PANEL FINISH PANEL END RH (See page IP-44)**
9. **INSTALL INSTRUMENT PANEL FINISH PANEL END LH (See page IP-46)**

Clock Display Circuit

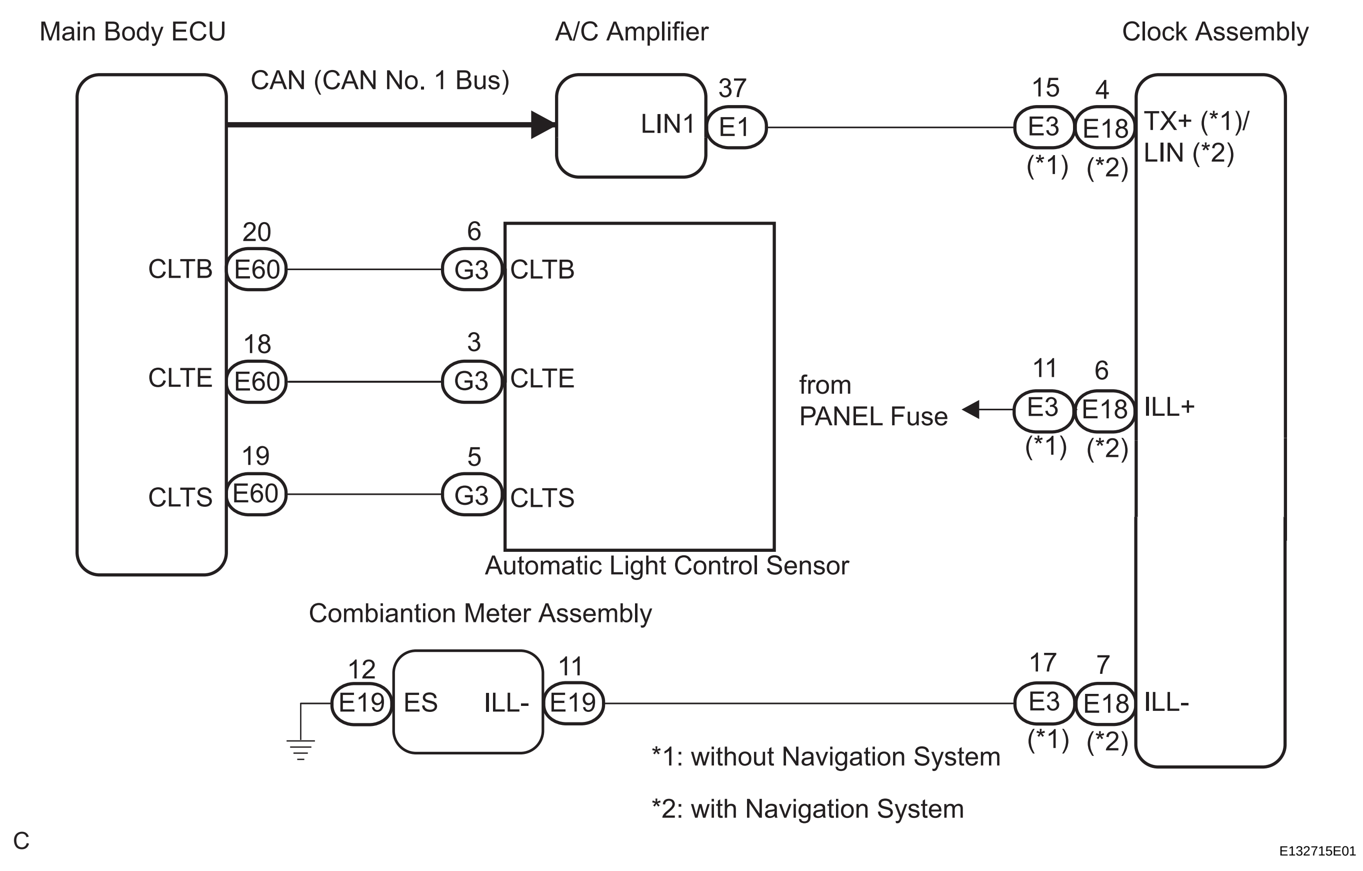
DESCRIPTION

The clock assembly uses this circuit to communicate with the A/C amplifier via the direct line. The clock assembly uses this circuit to receive auto dimmer signals. When the clock assembly receives an auto dimmer signal from the main body ECU through the A/C amplifier via the direct line, the clock assembly causes the clock display to be dimmed.

HINT:

If the automatic light control sensor has a malfunction, DTC B1244 is output.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK CAN COMMUNICATION SYSTEM

(a) Check if CAN communication DTC is output (See page CA-41).

Result

Result	Proceed to
CAN communication DTC is not output	A
CAN communication DTC is output	B

B **GO TO CAN COMMUNICATION SYSTEM**

A

2 CHECK AIR CONDITIONING SYSTEM

(a) Check the the heater control panel illumination.

OK:

The heater control panel illumination operates normally.

NG → **GO TO AIR CONDITIONING SYSTEM**

OK

3 PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Engine switch on (IG).
(c) Turn the tester ON.
(d) Light control switch TAIL/HEAD.
(e) Enter the following menus: DIAGNOSIS / BODY / MAIN BODY / ACTIVE TEST.
(f) Check the clock illumination.

MAIN BODY:

Item	Test Details	Diagnostic Note
DIMMER SIG	Auto dimmer signal ON/OFF	-

OK:

The clock illumination is dimmed when the DIMMER SIG is ON.

HINT:

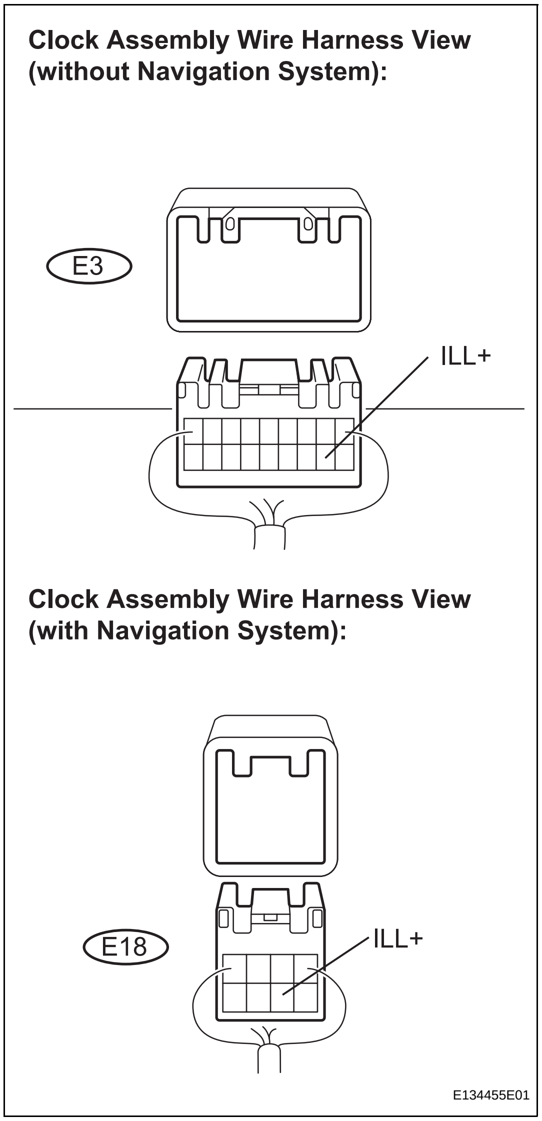
Refer to the sensitivity setting in the customization table of the automatic light control system (See page LI-29).

NG → **Go to step 4**

OK

REPLACE MAIN BODY ECU

4 CHECK HARNESS AND CONNECTOR (ILL+)


Clock Assembly Wire Harness View (without Navigation System):
E3
ILL+
Clock Assembly Wire Harness View (with Navigation System):
E18
ILL+
E134455E01

(a) Disconnect the E3 (*1)/E18 (*2) connector.

(b) Measure the voltage according to the value(s) in the table below.

Standard voltage

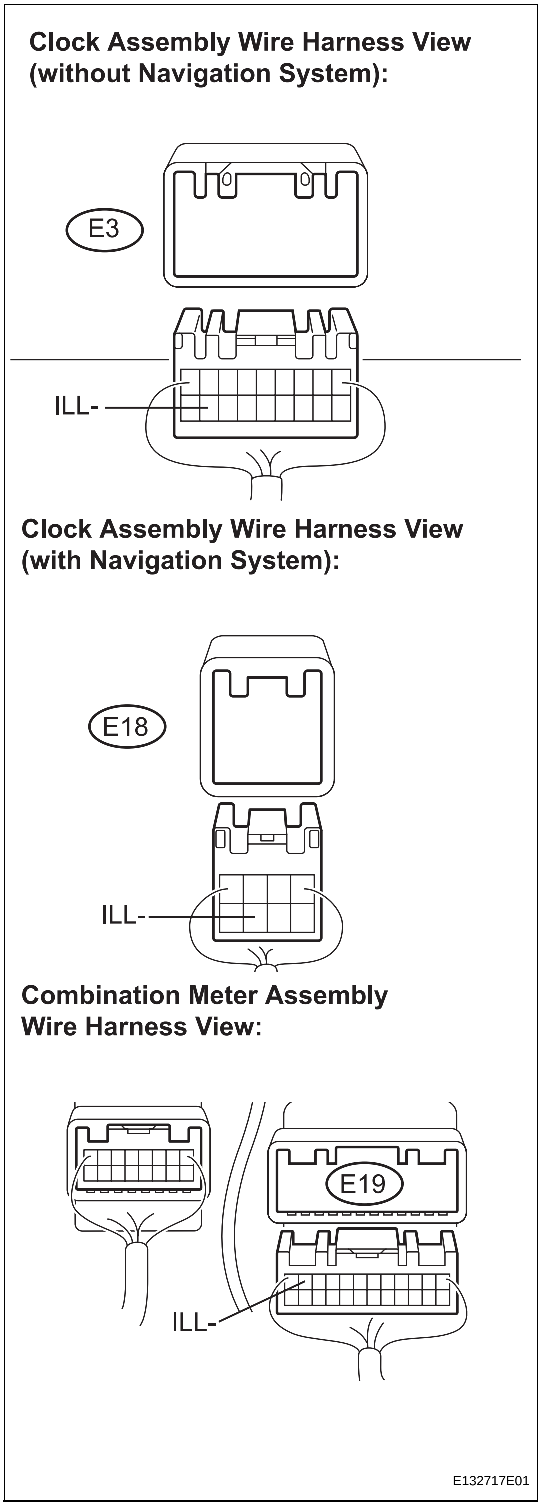
Tester Connection	Condition	Specified Condition
E3-11 (ILL+) (*1) - Body ground	Engine switch on (IG), light control switch TAIL/HEAD	10 to 14 V
E18-6 (ILL+) (*2) - Body ground	Engine switch on (IG), light control switch TAIL/HEAD	10 to 14 V

*1: without Navigation System
*2: with Navigation System

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5 CHECK HARNESS AND CONNECTOR (CLOCK ASSEMBLY - COMBINATION METER)


Clock Assembly Wire Harness View (without Navigation System):
E3
ILL-
Clock Assembly Wire Harness View (with Navigation System):
E18
ILL-
Combination Meter Assembly Wire Harness View:
E19
ILL-
E132717E01

(a) Disconnect the E19 connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
E3-17 (ILL-) (*1) - E19-11 (ILL-)	Always	Below 1 Ω
E18-7 (ILL-) (*2) - E19-11 (ILL-)	Always	Below 1 Ω
E19-11 (ILL-) - Body ground	Always	10 kΩ or higher

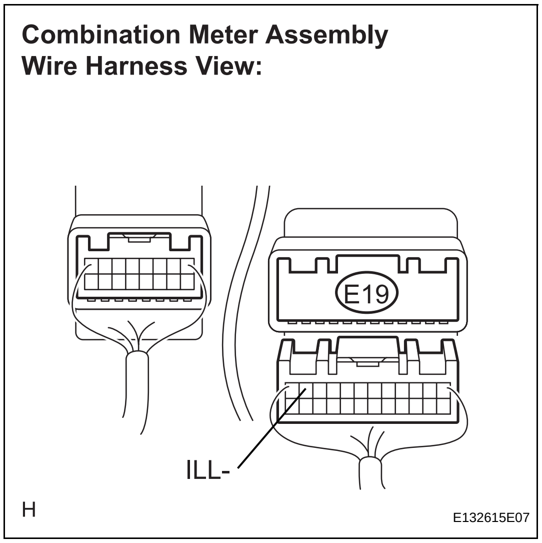
*1: without Navigation System

*2: with Navigation System

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6 INSPECT CLOCK ASSEMBLY

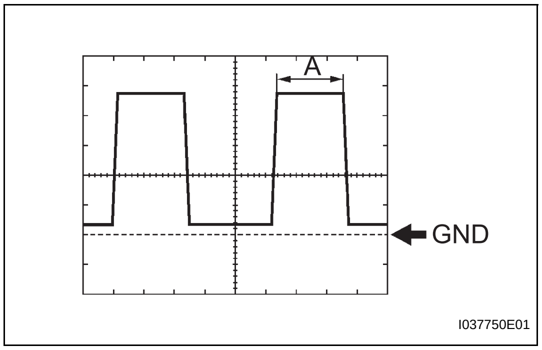


(a) Reconnect the E19 connector.

(b) Check the waveform shown in the illustration below.

OK

Tester Connection	Condition	Specified Condition
E19-11 (ILL-) - Body ground	**Turn the engine switch on (IG), light control switch TAIL/HEAD**	**Pulse generation (See waveform)**



(1) Waveform (Reference): Using oscilloscope:

Item	Condition
Tool setting	2 V/DIV, 1 ms./DIV
Vehicle condition	Turn the engine switch on (IG), light control switch TAIL/HEAD

HINT:

Duty ratio changes as the illumination becomes darker (the period "A" shown in the illustration becomes longer).

Result

Result	Proceed to
NG (without Navigation System)	**A**
NG (with Navigation System)	**B**
OK	**C**

HINT:

The whole heater control panel/multi-display should be replaced if the clock assembly has a malfunction because this part is not independently supplied.

A **REPLACE HEATER CONTROL PANEL**

B **REPLACE MULTI-DISPLAY**

C

REPLACE COMBINATION METER ASSEMBLY